

REMARKS

Favorable reconsideration of the application in view of the following remarks is respectfully requested. Claims 1, 5, 6, 11 and 12 are currently pending in the application. Claims 2-4 and 7-10 were previously cancelled. No claim has been amended as part of this response.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 5 and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Usuki et al (JP 2003-272121, hereinafter “Usuki”). This rejection is traversed for at least the following reasons.

Claim 1

Claim 1 recites, *inter alia*, that the magnetic recording layer comprises a ferromagnetic layer and a layer, on said ferromagnetic layer, having no granular structure and comprising a material selected from a group consisting of CoCrPt, CoPt, CoPd, FePt, CoPt₃, and CoPd₃.

Usuki

Usuki discloses a magnetic recording medium comprising (1) a first magnetic layer that consists of (A) a ferromagnetic metal alloy containing cobalt; and (B) a non-magnetic metal oxide and (2) a second magnetic layer that consists of a rare earth transition metal. *See* paragraphs [0007], [0012] and [0013].

In addition, Usuki discloses that a foundation layer may be formed under the first magnetic layer and provided between the first magnetic layer and an under coat layer that is

formed on the base material, with the foundation layer consisting of Ti, Pt, Ru, and Pd. *See* paragraphs [0009], [0029], and [0050]. In other words, Usuki discloses a structure consisting of: (1) a first magnetic layer consisting of a ferromagnetic metal alloy and a non-magnetic metal oxide; (2) a second magnetic layer consisting of a rare earth transition metal on top of the first magnetic layer; and (3) preferably a foundation layer below the first magnetic layer. *See* Figure 1, and paragraphs [0009] and [0066].

Applicants respectfully submit that Usuki does not disclose or suggest a stacked layer having no granular structure and comprising a material selected from a group consisting of CoCrPt, CoPt, CoPd, FePt, CoPt₃, and CoPd₃.

In contrast, in the presently claimed invention, the perpendicular magnetic recording disk has a structure consisting of: (1) a ferromagnetic layer; and (2) a stacked layer on top of the ferromagnetic layer. In addition, there is preferably (3) a spacer layer between the ferromagnetic layer and the stacked layer and (4) an underlayer below the ferromagnetic layer.

Even assuming *arguendo* that the first magnetic layer of Usuki meets the ferromagnetic layer of Claim 1 (a point Applicants do not concede), the second magnetic layer is not a layer comprising a material selected from a group consisting of CoCrPt, CoPt, CoPd, FePt, CoPt₃, and CoPd₃ since such a group contains no rare earth transition metal. The layer having no granular structure and comprising a material selected from a group consisting of CoCrPt, CoPt, CoPd, FePt, CoPt₃, and CoPd₃ is distinct from the second magnetic layer of Usuki.

Claims 5 and 11

Regarding Claim 5, Applicants respectfully submit that Usuki does not disclose or suggest a spacer layer between the ferromagnetic layer and the stacked layer. Paragraph [0029] of Usuki merely discloses the foundation layer, which is located below the first magnetic layer. Also, Usuki discloses the thickness of the foundation layer as ranging from 10 nm to 200 nm, preferably 20 nm to 100 nm (see paragraph [0029] of Usuki), which is outside the range disclosed in the present specification for the thickness of the spacer layer, 2 nm or less (see page 9, paragraph [0016] of the present specification). Thus, not only is the foundation layer of Usuki different from the spacer layer of the presently claimed invention, the foundation layer is not located between a ferromagnetic layer and a stacked layer.

Regarding Claim 11, this claim depends from Claim 1 and would be patentable for the reasons given above for Claim 1.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

Claims 6 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Usuki et al (JP 2003-272121, hereinafter “Usuki”). This rejection is traversed for at least the following reasons.

Turning next to the rejection of Claims 6 and 12, the rejection should be withdrawn because, as discussed above, there is no suggestion, either from the description in the prior art or from the knowledge of an artisan, to provide a layer, on the ferromagnetic layer, having no

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granular structure and comprising a material selected from a group consisting of CoCrPt, CoPt, CoPd, FePt, CoPt₃, and CoPd₃, as claimed.

Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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